DOCUMENT RESUME

ED 201 614 SP 017 974

AUTHOR Burnham, Robert A.
TITLE Do Schools of Education Have a Future? Yes, If...
PUB DATE 81
NOTE 23p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Change Strategies; Computer Oriented Programs; Curriculum Development; Educational Technology; *Educational Trends; Futures (of Society); Global Approach; Higher Education; *Organizational Change; *School Role; *Schools of Education; Teacher Education

ABSTRACT

The general social context within which schools, colleges, and departments of education (SCDE's) operate is examined. The legitimate sphere of operations of SCDE's, referred to as a "domain", is composed of the clients served, the technologies employed, and the services or products provided to their environment. A lack of congruence is seen between the expectations held for SCDE's and their performance. Demographic, social, and technological developments require a shift in the domain of SCDE's if they are to become a vital force in the world of the future. Major initiatives destined to close the widening gap between expectations and performance are suggested: shifting from narrow training to broad-based education to serve the larger community; strengthening and using the available research and knowledge base; and upgrading service and performance standards. Recommendations for future undertakings by SCDE's include: (1) using emerging high technology (i.e. computers); (2) incorporating global perspectives into university and school curricula; and (3) continually integrating new knowledge and technology into ongoing teaching, research, and service missions. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED201614

DO SCHOOLS OF EDUCATION HAVE A FUTURE? YES, IF...

paper presented at

1981 AERA Annual Meeting
Los Angeles, California

April 13-17, 1981

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Robert Burnham

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

by

Robert A. Burnham
College of Education
The Ohio State University

SP017974

DO SCHOOLS OF EDUCATION HAVE A FUTURE? YES, IF...

"(T)he point is, the future is not a place to go, but something we bring about by our actions in the present."

--K. Patricia Cross, "Two Scenarios for Higher Education's Future," AAHE Bulletin

INTRODUCTION

Adapting-to-change, as a topic, is like the weather. Everyone talks about it, but little seems to be done about it. Many acknowledge that adaptation to a changing environment is the key to survival of a species. There are indications that a number of schools, colleges, and departments of education (SCDE's) are attempting to adapt. According to a recent Carnegie Commission report, the subset of SCDE's of the type represented on this panel -- the larger, research-oriented, professional schools of education located in comprehensive universities -- are in the best position to take steps to meet an uncertain future.

It seems clear, to me at least, that those of us in key SCDE leadership roles must (1) understand the character and magnitude of the forces which will press upon us in the next several decades, and (2) respond to them in planned ways. Academe's mechanisms for altering institutional direction and organizational inertia are ponderously slow. The gap between societal expectations and institutional performance in widening. We may well become extinct if we fail to respond to legitimate expectations.

Conceptual Framework

There is an interesting body of literature on organizations that is heuristic, if not instructive, for our discussion here. The aspect of organizational processes I refer to is the concept of domain shift which forms a general outline for my paper. I'll explain this concept briefly. Each organization has, by definition, a legitimate sphere of operation, called a domain, which is comprised of the clients served, the technologies employed, and the services or products provided to its environment (Thompson, 1967). The domain is viewed as legitimate if

the larger society in which the organization functions agrees that the organization may claim jurisdiction over certain resources, processes, and clientele. Over time, the organizational domain may be perceived by persons both within and without the organization to be lacking congruence with environmental expectations. That is, the clientele served may be too narrowly identified, the instrumental processes may be outmoded or ineffective, and the services or products may only partially meet the quality and quantity standards of the organization's environment.

If the organization is to continue to draw resources from its environment, then it must determine what the legitimate aspects of the organization's domain are that should be brought into congruence with the changed expectations of the larger environment. It is this process of bringing the domain into congruence with a new set of expectations that is referred to as a domain shift.

The organization must, to some extent, preserve the existing organizational domain even as it endeavors to shift to some new, more congruent state. Keeping the existing organization in relative balance while reallocating a portion of total resources to the implementation of the domain shift requires considerable leadership skill. Our effectiveness as leaders is judged in terms of our ability to manage the many issues that arise as a consequence of such domain shift (Pondy, 1979).

Succeeding portions of this paper cover the general social context within which SCDE's operate; the demographic, social and technological developments that influence us; trends toward domain shifts; and the opportunities we have to adapt still further to become vital forces in the world of 2000 and beyond.

RESPONSIVENESS TO A CHANGING WORLD

As I outlined the concept of a domain shift, I realized there is a danger of being misinterpreted as saying we should adapt to all societal demands. Not so. We must negotiate with our constituent groups in the larger society to arrive at a set of social contracts that define our legitimate sphere of operation. We can't be everything to everyone. Moreover, the diversity of interests and capabilities we possess as SCDE's means we are likely to have highly differentiated jurisdictions and domains. As professional schools, we are jointly responsible with our constituents -- be they parents, practitioners, professional educators, or politicians -- to consider and balance societal and professional expectations.

The amount and magnitude of change taking place in our society is bewildering, yet fundamental. Daniel Yankelovich recently described the virtually infinite societal demands brought about by demographic changes. These infinite demands exceed our institutional capability of meeting them, thus contributing to the rising feeling of disappointment in our social institutions. Yankelovich also pointed out that peoples' demands in the name of a moral right, a "psychology of entitlement," are not related to our capacity to produce or deliver. Education is considered a right; therefore, the price of education bears no relation to demand in a market sense. Such insatiable demands on our various social systems lead to inflation as we borrow against the future. Demands born of wants and desires are nearly infinite and will always exceed supply. Setting a price on education, therefore, is a political problem, not a market problem.

Yankelovich perceives a dynamic cycle in adapting to change in our society. Changes occur and are either misunderstood or denied. Then

there is a realization of the fact of change, followed by a scurrying to catch up. The disparity between expectations for public schools and what they can deliver has led to grave discontent. Similarly, there is a substantial gap between demands on SCDE's and what we are doing, as well as a disparity between demographic change and our adaptation to it. Both the schools and the SCDE's have problems with (1) perceptions of expectations, (2) with the time needed to internalize the meaning of change, and (3) with further lag in their responses.

A contributing factor in the widening gap between changed circumstances and our perceptions of the need to adapt is confused messages from spokespersons that define the expectations and processes for change. Claims that "teacher can't teach" and the counterclaim that "teachers are better prepared than ever" confound the listener. Recently more credible, clearer messages have been to acknowledge the shortcomings of teacher preparation and to assert that improvements are needed, and are, in fact, underway.

An essential starting point for change is recognition that a need for change exists. Educational leadership at all levels appears to have crossed that threshold level of awareness and is calling for adaptive responses.

Imperatives for Change

Although much has been written and said about societal and demographic factors that are driving forces for change, the magnitude and multiplier effects of these forces have caught us unaware.

Professor Lee Anderson at Northwestern University has characterized the Twentieth Century as the "Century of the J Curve" in his book Schooling and Citizenship in a Global Age (Anderson, 1979). A J curve is a graphic representation of geometric or exponential change.

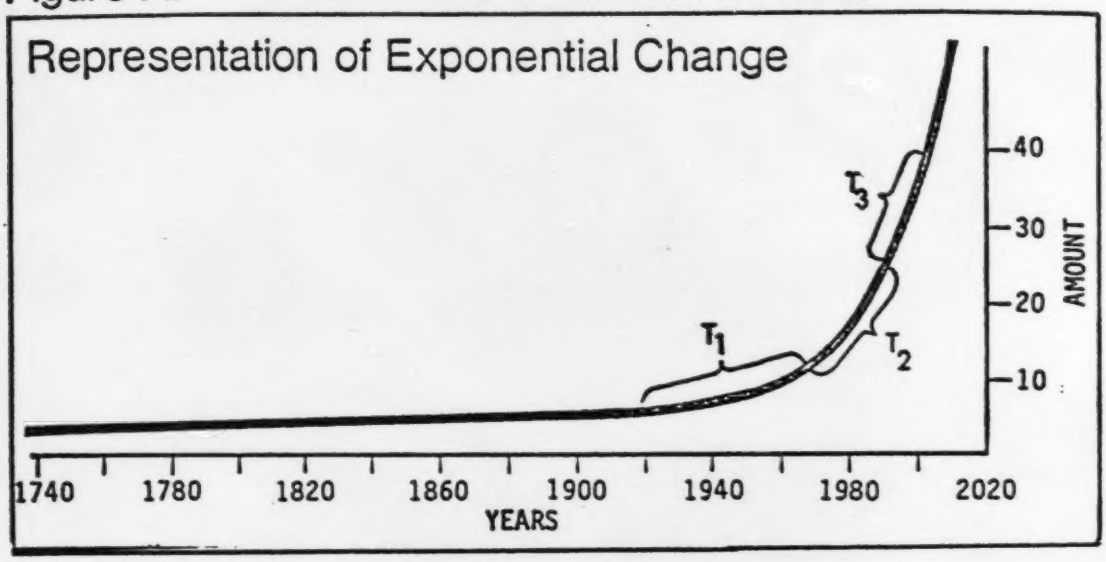
He says:

> *For a long time the rate of change is slow, indeed, so slow as to be hardly perceptible. Then at some point the rate of change dramatically accelerates. When this type of change is graphically plotted, the result is a curve that resembles the letter J. A line that is for a long time essentially horizontal suddenly bends and becomes almost vertical (pp. 34-35).*

Anderson gives many examples of J curves to support his characterization. This exponential growth pattern is an attribute of world population, total books published, speed of communication and transportation, number of living scientists, total energy consumption, scientific invention in various fields, and developments in computer and communication technology to name a few. The similarity of these multifold trends is striking. These multiple patterns can be superimposed schematically on a time scale to depict exponential change of an indefinite amount as a general phenomenon (See Figure A).

Coping with changes occurring in the slow initial growth stage (T_1) of Figure A is comprehensible. We are having considerable difficulty adjusting to the turbulent contemporary world (T_2) as we "round the bend" in the 70's and 80's. Will our institutions be capable of surviving in the time period of accelerating change (T_3) that is soon to be upon us?

Figure A. REPRESENTATION OF EXPONENTIAL CHANGE



Some of this changed reality was an unforeseen reversal of what we we took for granted. Our history has been one of relatively gradual change and linear growth in expectations and demands. For years we took for granted modest economic growth and well-being. Curiously, the rate of inflation may be the single best barometer of citizen well-being (Yankelovich, 1980). From the turn of the century through 1976 consumer prices increased about 2% annually on the average. In the last four years we have seen 10-12% annual rates of inflation. Peoples' demands are now rapidly and cumulatively accelerating in an exponential fashion, but our economic and social institutions are responding in a linear mode.

Also, there have been sharp discontinuities brought about by cultural, political, and economic revolutions. The 1973 Arab oil embargo was a "watershed" event, an economic and cultural turning point for the United States at the bend of the J curve.

Our processes for responding to change, developed during the periods of slower growth, seem singularly inadequate as we move toward a period of exponential growth. Even if the J curve "plateaus out" into the familiar S curve, the world of T_3 is vastly different from T_1. While the schematic J curve analogy is a useful way to think about change, the smooth shape masks uneven rates of change among various sectors of our society, as well as geographic and developmental stage differences. Alvin Toffler's second and third wave conceptualizations convey these same notions.

Another set of forces with great influence on what we do or should be doing in education is related to a growing awareness of our global interdependencies. The advent of transnational corporations; the energy crisis and OPEC control of oil prices; the spectre of famine, nuclear war and terrorism; and our national frustrations in Iran, Afghanistan and Poland have heightened our awareness of the "global village" in which we live. Knowledge about and understanding of these crucial world-wide interdependencies lag far behind the need to create a global perspective at all levels of education. Developing this global perspective among faculty, teachers, and students must become a priority task.

Two great streams of technology have, over the past fifty years, merged into the new high technology that portends a Kuhnian revolution in education, if not all society. I refer, of course, to computer technology and communications technology which have vaulted us into the information age. Truly, we have rounded the bend of the J curve in terms of innovation and application of this information/communication technology. New developments occur almost daily and the applications in education seem limited only by our imaginations.

I have briefly sketched some of the major forces and indications of change in our society. Each aspect of such dynamic change seems to create new demands on our educational institutions. Society expects more in terms of rapid change than we are able to deliver. And more than it is willing to pay for, as perceived by the present Administration in Washington.

Next, I will cover some contemporary responses SCDE's are making that represent domain shifts.

TRENDS AND DOMAIN SHIFTS

One of the most important recent developments in teacher preparation, as well as in the public schools, is to acknowledge the gap between societal expectations and institutional performance at those several levels. In acknowledging our failures in education we have recognized the reality of the situation. The litany of criticism of public education and of teacher preparation does not need to be restated. We now need to give a clear signal to the public and to society that we are taking the initiative, that we are becoming a profession.

Clientele Served

Schools, colleges, and departments of education are reaching out to a broader constituency than ever before. Not only do we prepare teachers to work with individuals across the life span, but they are better prepared to teach persons with diverse abilities, cultural backgrounds, and handicapping conditions.

An indication that SCDE's are "coming of age" is the concept of pedagogy applied to the preparation of individuals to serve as educators in diverse settings. I believe there is a unique role for SCDE's to serve professional educators in business and industry, human and social

services agencies, and governmental positions. I believe educational institutions of the kind represented here have clearly moved beyond schooling to education, to broad-based education as opposed to narrow training.

Technology Employed

Pedagogy is, of course, the instrumental process employed in teaching/learning situations. The art and science of teaching have been vastly improved over the last decade. Experiential components have been built into most educator preparation curricula, both to aid persons in deciding on a career in education and to enhance the practical application of academic and methodological understandings and skills. Given the interactive effects of serving an expanded range of clientele in diverse settings, the teacher preparation curriculum has been overlaid with a number of additional requirements. At varying points in time the curriculum has had to absorb emphases on career education, multicultural education, and education of the handicapped, as well as new math or new science and the like. The result of these "lay-ons" is often a fragmented curriculum.

Knowledge production in SCDE's like those represented here has been moving ahead staunchly. Research, development, and scholarship efforts have provided an extensive knowledge base for educator preparation, and the base continues to grow. A recent NIE supported report, "Increasing the Research Capacity of Schools of Education: A Policy Inquiry," by Sylvia B. Tucker and eleven others (including panelist Mike Atkin), concludes:

> *When inquiry and scholarship become the central focus of schools of education, the quality of*

> *all educational programs will be greatly improved. The very character of schools of education will be altered and those changes will have a profound effect on the behavior of current faculty and new faculty, as well as our relationship with the total profession. The profession of teaching will be vastly strengthened when the knowledge base on which it rests is constantly tested and demonstrated in first-rate professional preparation programs. Nothing less is an acceptable goal (p. 21).*

This is a courageous report that challenges the research-oriented institutions to integrate their inquiry and professional preparation functions. Most of us would argue for consistent, coherent, and systematic application of such knowledge to all that we do in SCDE's. Outcomes of our research and development activities must be synthesized and carried into practice as an ongoing activity whenever adequate validation occurs.

Developmental research approaches would appear to have great merit in integrating research and practice. Professor Don Sanders writing in the Educational Researcher (Sanders, 1981) describes developmental research as incorporating the best of scientific inquiry, as applying to the uniqueness of the educating processes, and operating in evolving contexts and social settings. He asserts that developmental research would foster the building of "process level explanations leading to cumulative progress in the scientific understanding of educating (p. 13)." We ourselves must become exemplars in professional practice.

Services Provided

Great concern for quality exists in terms of the performance of graduates of our preparation and advanced degree programs. These concerns are being resolved in practice through various assessment programs, through some competency testing approaches, and by efforts to expand substantially the standards that apply to programs which profess to

prepare high quality professionals. In this latter regard, the group of deans of major land-grant and affiliated private colleges of education, has been developing enhanced performance standards for fifth and sixth-year initial preparation programs. It is apparent from discussions in the ACSESULGC group that both society at large and these SCDE's themselves demand rigorous quality control of the type needed if the educating professions are ever to fulfill their goal. A college degree or a certificate, in and of itself, is insufficient evidence that the holder has the competence to be licensed as a professional. We must move toward professional standards that provide assessment of what people have and have not learned in dealing with people, ideas, and things. Teachers must have demonstrated competence to deal in-depth with individually defined areas of expertise.

The domain of an organization is legitimized through a series of negotiations or exchanges with the larger environment. In a great many ways, society is informing us that we are expected to prepare superior teachers, quality educational services, and superior curricular and instructional strategies and materials. We should seize the opportunity to close the gap between our performance and those expectations. To argue that we cannot prepare full-fledged professionals until society is willing to pay adequate salaries for teachers is to beg the question. We should work hand-in-hand with that segment of our environment -- with qualified practitioners, interested parents and citizens and members of the teaching profession -- who would join us in raising professional standards and raising salaries to match superior performance. We simply cannot cater to the infinite wants and desires of all society, but we can and should determine which of those expectations are appropriate for us to meet as professional educators.

Over the recent decade, there have been some negative aspects to our responses to change. We have made a number of false starts. Cynics have criticized what I believe are legitimate efforts at preparing educators for the broader educational community. Valid innovations are easily confused with fads, and vice versa. Huckstering has occurred to keep enrollments up and resources flowing. Training, certification, and degrees have been bought and sold to the unqualified. Also, much fragmentation exists in terms of certification requirements designed largely to protect vested interests or some specific piece of turf.

There are some dangerous trends that amount to further muffled signals in terms of what the teaching professional should do and might be. When a state certification body, like that in Texas, lowers substitute teacher certification standards due to moderate teacher shortages, we should decry that compromise publicly and emphatically as a regression from our attempts to create a teaching profession and a quality educational system.

In acknowleding our failures in education and identifying the widening gap between expectations and performance, SCDE's have established a basis for a reform movement. Rather than create an impassable quagmire by recounting all the constraints, limitations, and consequences of trying to solve all the problems facing education, let me sketch some of the preferred futures I would like to see.

PREFERRED FUTURES

SCDE's should assess what they are doing and plan to keep the best of what they have underway in terms of inquiry, preparation, and applications to the professional field. We must stress the fundamentals as we

always have, but we also must anticipate the future and the impact of accelerating and exponential change. Given the uncertain future, education curriculum needs to be flexible and adaptable.

If we build upon our expanding research and development base, including the application of technology and the maintenance of a future orientation, it seems we would do the best job of positioning ourselves to handle the contingencies that might arise in the future. Thus we can act in ways that will likely lead us to our individual preferred futures.

There will be many opportunities in the next few years to join with concerned citizen groups, with the organized profession, with the leadership in government, and with related groups to unify our actions as professional educators. Politically, the time is right to build a base of support for unified action. Coalition building activities are a necessary part of our professional life. There have been and will be opportunities that can be seized to continue to support systems change. That is, opportunities should be created to enter, perhaps a better phrase is to break into, the educational system at various access points to reinforce the reforms that are taking place. Reforms must take place at various grade levels and for diverse clientele whether they be preschoolers, minorities, educationally disadvantaged, exceptional learners or teachers-in-training.

There are two major movements which I believe have great potential to aid in improving teacher preparation as well as K-12 curriculum and instruction. The first is the grass roots movement in the use of interactive microcomputers in the schools, and the second is the movement to infuse teacher preparation and school curricula with global perspectives.

Computer-aided instruction earlier failed to meet our needs in education because we saw it in a metaphorical sense as either a page-turner or a bookkeeping clerk and unit costs were fairly high. The current metaphor is that the computer, coupled with human interaction, is an extension of the human mind. Young children are quite capable of programming the microcomputer for learning and problem-solving purposes. A large number of teachers and parents are working with students and learners in the classroom and at home on a burgeoning number of personal computers. Adults and children are learning together using this technology. It is a unique grass roots effort that is sweeping across the educational scene.

The educational ramifications of relatively low cost microcomputer and videodisc technology are enormous. If schools resist the use of the technology due to fears of job displacement or inflexible instructional strategies, then the current momentum will carry the applications for learning into the home and elsewhere into the community. School staff members, at a minimum, must be prepared to complement and supplement this type of extracurricular learning. Serious equity and educational opportunity problems may arise if only the relatively affluent students have access to the technology.

The fact that a cost-effective technology is now at hand that could alter the labor intensive nature of the educational enterprise has not escaped the attention of policy-makers.

In its interactive mode, the computer can manipulate large amounts of data, handle multiple variables, and reduce to human proportions the volume of information that seems to be growing before our eyes. Comparable developments in videodisc technology have taken place, and when linked to the microcomputer, become very powerful instructional tools.

We tend to accept technology when it permits or intensifies human interaction. Telecommunication advances in the area of low cost data, voice, and image transmission and distribution through so-called information utilities and cable-TV networks are rapidly opening new channels of human communication. Thousands of computer network users are regularly exchanging both business and personal information across the country. The number is growing daily.

It is estimated that by 1985, 68% of the work-force will use computers directly or indirectly in their work. Computer literacy, therefore, supplemented with information processing skills, is a necessary part of the three R's.

A number of us at research-oriented institutions are pioneering in this field and will continue to do so. The capabilities of the computer will enable us to custom tailor individual educational programs --actually making such programs more humane compared to the mass production techniques of the past. It is encumbent upon us to find ways to integrate the utilization of such technology into our programs and to aid educators everywhere in understanding the impact and the use of this technology.

There has been a pronounced secular trend in the United States toward diversity and pluralism. I believe this trend will extend into the adoption of a global perspective in our society over the next decade. Today's parents want their children to succeed in the private and public enterprises of the future which includes multi-national and transnational corporations. Educational deficiencies in global understanding, foreign languages, and cultural differences mean we may not have the expertise to lead us in the turbulent times ahead.

Just as instanteous communication around the world is altering our perspectives of time and distance, so are we increasingly aware of world situations and events, of their influence and consequences for the United States. Because world events have become a permanent part of our domestic concerns, the ways we prepare our children and youth to understand their increasing interdependence as residents of the Global Village must be continuous and sustained and not motivated by current world crisis. There is no escaping from the reality that all our destinies are intertwined.

I believe the concepts subsumed under the global perspectives rubric are of fundamental importance in school and college curricula. Understanding and coping with exponential change is an integral part of teaching from a global perspective. Yet only a handful of SCDE's are beginning to infuse these crucial perspectives into teacher preparation curricula. Instructional strategies and curricular materials for communicating a global perspective for elementary and secondary schools are similarly lacking. Stark awareness that America's industrial advantage is lessened and that our country is more dependent on the rest of the world should provide the impetus to update our educational system with global understandings.

Educational research and development, including the application of high technology, are the keys to our survival in the 21st century. The appropriate use of technology is the hope of the future in education since it can help us cope with the complexity of the information age and it is cost-effective. Its employment would enhance educational productivity. The key task for the 80's for education is to sustain still longer the curriculum design and renewal efforts that have recently begun. The

necessary and perhaps sufficient condition for our survival is integration of curriculum, methodology, and technology in ways that are responsive to societal demands and are professionally responsible. We must heed the calls for reform. The American auto industry did not respond to similar expectations and interests, and it failed to do so at great social and economic costs. SCDE's like ours must balance and integrate their priorities for research and development, for instruction, and for dissemination and networking.

CONCLUSIONS

As I reviewed what I had written to this point in my paper, I had the uncomfortable feeling that I had recounted the problems of the world in one presentation.

In summary, my intent was to:

1. Outline the notion of domain shift as a conceptual framework for (a) perceiving the lack of congruence between the expectations held for SCDE's and our performance, and (b) how our clientele, instrumental processes and services might be altered to match mutual expectations.

2. Discuss the influence of accelerating rates of change and acknowledge the widening gap between expectations and performance.

3. Enumerate major initiatives destined to close the gap by (a) shifting from schooling to education in the larger community, (b) strengthening and using our research and inquiry knowledge base, and (c) upgrading service and performance standards.

4. State my several recommendations for future undertakings including (a) the use of emerging high technology, (b) the incorporation of global perspectives into university and school curricula, and (c) the urgent

need for continuous integration of new knowledge and technology into our ongoing teaching, research and service missions.

These are extremely complex matters we are attempting to resolve. And these uncertain times require us to build new structures on shifting sand, as the expression goes. There is, however, no better time to start.

What I have argued for in this paper and what we are attempting to do at The Ohio State University is simultaneously to increase congruence both with the perceptions of our constituents and with our professional perceptions of what is for us an appropriate mission and role. This kind of shift is enormously complicated. Concurrently, we are forming coalitions with our constituents in the field, paving the way for internal changes, and introducing new technology and new curricular content.

As Dean, I must be mindful of the way we at OSU balance these activities so that they complement and reinforce one another. I have found our faculty to be tremendously responsive to sustained curriculum design and curriculum improvement efforts if they see the connection between their own interests and the need to maintain ourselves as an organization. We are making a domain shift and we are having reasonable success.

This is a demanding task in terms of orchestration. Piecemeal changes, however, have failed to close the gap. Similarly, a single effort, like relying on computer technology, will not close the gap. Or, designing new coalitions in and of themselves will not resolve our problems.

We have been in an extended period of relatively linear growth that is now more aptly characterized as exponential growth. The turbulent times we are experiencing represent a transition as we round the bend of the J curve. The paradigms that served well in the past, may not help us during this period of accelerating change. Furthermore, uneven rates of change that confuse the situation are being experienced in various segments of society and in different parts of the country. Differing responses to change are embodied in our own perceptual screens. The information age, however, calls for new modes of response and dynamic and flexible ways of coping with greater change than we have experienced thus far. The educational personnel development requirements are enormous.

Many SCDE's are working to define, clarify, and expand their missions. I believe we are moving toward something that historians in the future will identify as a major reform of education.

We have in the past, unfortunately, relied on exogenous shocks to stimulate us to overhaul or reform our educational system. The movement to apply and integrate research and development outcomes into preparation program improvements is commendable. The grass roots movement in the use of microcomputers and related technology is worthy of our support. I argue for continuous and sustained renewal of programs and personnel for the teaching professions. As the preparation arm of a maturing profession, SCDE's should internalize the requirement for growth and improvement and not rely on crises or external motivations to bring about positive change.

The need is for schools and colleges and departments of education to make a domain shift of a comprehensive nature. If we are capable of carrying out that type of systems change, then I'm sure that schools of education do have a viable future.

BIBLIOGRAPHY

Association of Colleges and Schools of Education in State Universities and Land Grant Colleges - and Affiliated Private Universities (ACSESULGC). Modified Standards for Extended Programs of Teacher Education (Task Force Proposal), February 1981.

Anderson, Lee. Schooling and Citizenship in a Global Age: An Exploration of the Meaning and Significance of Global Education. Bloomington, Indiana: Social Studies Development Center -- Indiana University, 1979.

Carnegie Council on Policy Studies in Higher Education. Three Thousand Futures: The Next Twenty Years for Higher Education. San Francisco: Jossey-Bass, Inc., 1980.

Council on Environmental Quality and The Department of State. The Global 2000 Report to the President: Entering the Twenty-First Century. Washington, D.C.: U.S. Government Printing Office, 1980.

Cross, K. Patricia. "Two Scenarios for Higher Education's Future." AAHE Bulletin. Vol. 33, No. 1, September 1980, pp. 1, 14-16.

Pondy, Louis. "Issue Management by School Superintendents." Urbana, Illinois: University of Illinois -- Unpublished paper, 1979.

Sanders, Donald P. "Educational Inquiry as Developmental Research." Educational Researcher, Vol. 10, No. 3, March 1979, pp. 8-13.

Thompson, James D. Organization in Action. New York: McGraw-Hill, 1967.

Toffler, Alvin. The Third Wave. New York: William Morrow and Co., Inc., 1980.

Yankelovich, Daniel. "New Demands of a Changing Population." Battelle Endowment Program Lecture, The Ohio State University, February 1981.